Evaluation of Special Regulations for Managing Walleye in Iowa's Natural Lakes

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Besides being important walleye fisheries, the Iowa Great Lakes are the main source of broodstock walleye (≥ 17 inches TL) for the Spirit Lake Hatchery. Due to increasing demands for more walleye, the production of the hatchery was expanded by 50% in 1978 to a capacity of 840 quarts of eggs. Beginning in 1980, the number of quarts of walleye eggs taken from these lakes declined and concern was raised about the possible decline in broodstock abundance. Since 1987, additional eggs were obtained from Clear and Storm Lakes to offset any shortages.

In response to this increased demand for more walleye production, restrictive walleye regulations were imposed on the Iowa Great Lakes, as well as, Clear, and Storm lakes. Beginning in 1987, a minimum length limit of 14 inches was imposed on the Iowa Great Lakes. In 1991, a 15-inch minimum length limit was imposed on Storm Lake, and a 14-inch minimum length limit was imposed on Clear Lake. The daily bag limit was reduced from 5 to 3 fish per day, and the possession limit was reduced from 10 to 6 fish. Only one walleye could be greater than 20 inches in length, except in Storm Lake where only one walleye could be over 22 inches in length. Additionally, beginning in 1994, a minimum length limit of 15 inches was implemented on Blackhawk Lake, and the daily bag limit was again reduced from 5 to 3 fish per day. The goals of these regulations were to increase yield (lbs./acre), spread out the harvest to more anglers, increase catch rates, decrease harvest of small fish, decrease mortality of sub-legal walleye, and, ultimately, increase the number of large (especially broodstock) walleye in these lakes.

Research is needed to determine the impact of special regulations on the walleye populations in the Iowa Great Lakes, and to develop a comprehensive plan for managing walleye populations in natural lakes with or without special regulations.